**BEFORE THE NEBRASKA PUBLIC SERVICE COMMISSION**

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| **In the Matter of the Commission, on its own motion, to make adjustments to the universal service fund mechanism established in NUSF-26** | **Application No. NUSF-50**<br>**Progression Order No. 3** |
| **In the Matter of the Commission, on its own motion, seeking to investigate whether the zones established in Docket No. 2516 are appropriate in light of NUSF-26 findings and conclusions.** | **Application No. C-3554/PI-112** |

# QWEST CORPORATION

# TESTIMONY OF PETER B. COPELAND

**APRIL 17, 2007**

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## I. IDENTIFICATION OF WITNESS

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Peter B. Copeland and my business address is 1801 California Street, Denver, Colorado 80202. I am employed by Qwest Services Corporation ("Qwest") as Director, Cost and Economic Analysis, in the Public Policy organization.

**Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE.**

A. I have been employed by Qwest, U S WEST, and Bellcore for the past 25 years. My experience with Qwest and Bellcore includes responsibility for the development of wholesale and retail cost studies, models of the local exchange network, universal service advocacy, jurisdictional separations, and rate development. I was one of the principal developers of the BCPM cost model, which this Commission recommended to the FCC to determine the level of federal universal service support in Nebraska in Application No. C-1633 and later utilized as one of the three adopted UNE loop models in Application C-2516/PI-49.

**Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

A. I have a Bachelor of Arts degree from Brown University in Urban Studies and a Master of Public Administration from the University of Colorado.

**Q. WHAT ARE YOUR CURRENT JOB DUTIES?**

A. My current responsibilities include the development of universal service testimony and supervision and development of all wholesale and retail forward-looking cost studies for Qwest. Additionally, my group provides economic analysis for regulatory proceedings.

**Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION OR OTHER STATE COMMISSIONS?**

A. Yes. I have testified before the Nebraska Commission in several universal service proceedings. I have also testified in other states, including Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, New Mexico, North Dakota, Oregon, Utah, Washington, and Wyoming. I have also appeared as a panel member before the FCC concerning Universal Service costing.

## II. PURPOSE OF TESTIMONY

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. In Progression Order No. 3, staff proposes further de-averaging Qwest's unbundled network element (UNE) loop rates below the existing three zones to attempt to align the UNE zones with the NUSF zones. Staff also proposes two alternative, but related, methods of determining support ported to CETCs. The purpose of my testimony is to comment on the proposed de-averaging methodology and the porting methodology as follows:

1. Any change in UNE loop rates must comply with the FCC's TELRIC rules.

2. In conjunction with Dr. Fitzsimmons' testimony, my testimony demonstrates that the proposed results for the de-averaged loop rates and the porting of support are inconsistent with TELRIC methodology. This is true primarily because the proposal does not determine loop prices according to their TELRIC costs. The models used by this Commission to estimate UNE loop costs were not designed to estimate costs below the geographic level of the wire center. It is nearly impossible to modify the approved models to produce geographically consistent in-town and out-of-town costs. This fundamental failure of the proposal's premise is compounded by several factual and logical errors in the analytical approach used, even within the proposal's flawed premise.

3. My testimony provides updated TELRIC loop costs using the Commission-approved models and methods from Application No. C-2516/PI-49,[1] updated to reflect current line counts and costing inputs.

4. Additionally, though Qwest generally supports the porting portion of the proposals put forth by the Commission in the February 13th order in this docket and in *Progression Order No. 2 i*n this docket, I provide corrections to the porting calculations to make them consistent with proper TELRIC calculations and propose a clarification to the proposed method for porting support that is

[1] Application No C-2516/PI-49 Findings and Conclusions, Entered April 23, 2002.

consistent with the Federal USF support for UNE-based carriers, as well as state funds in Colorado and Oregon.

## III CALCULATION OF DE-AVERAGED LOOP RATES

**Q. ARE THERE SPECIFIC RULES AND PROCEDURES TO DETERMINE THE PRICES FOR UNBUNDLED NETWORK ELEMENTS (UNES)?**

A. Yes. As required by 47 USC § 251, the FCC has ordered the rules and methodology for calculating the costs and the rates for unbundled network elements. These rules reside in Part 51 of 47 CFR. Under these rules, the rates for each element may not exceed the forward-looking economic cost that complies with the FCC's methodology. In Docket C-2516, the Nebraska Commission ordered UNE loop rates in three cost-based zones based on the FCC's forward-looking economic cost methodology.

**Q PLEASE EXPLAIN THE FORWARD-LOOKING ECONOMIC COST METHODOLOGY DESCRIBED IN THE FCC RULES.**

A. The FCC's forward-looking cost methodology is also known as TELRIC methodology. TELRIC stands for Total Element Long Run Incremental Cost. TELRIC methodology is a form of replacement cost methodology. It assumes that forward-looking cost of the entire quantity of the network element provided. In this case, we are talking about the entire quantity of voice grade loop demand. This demand is the reasonable projection of the sum of the total number of loops

that Qwest is likely to provide to requesting telecommunications carriers (e.g. CLECs) and the total number of loops that Qwest uses in the provisions of service to its own retail and wholesale/commercial customers. In TELRIC methodology, the long run used is a period long enough that all costs are treated as variable and avoidable. This includes all of the costs of facilities and functions that are directly attributable to loops or costs that can be avoided in the long run by ceasing to provide loops.

**Q. UNDER TELCRIC METHODOLOGY, HOW DO YOU DETERMINE THE TYPE OF REPLACEMENT NETWORK THAT YOU ARE COSTING?**

A. The FCC rules dictate that the network should be based on the most efficient telecommunications technology currently available and deployed in the lowest cost network configuration, given the incumbent LEC's current wire center locations. In this case we are talking about the most efficient telecommunications technology currentlably for the provision of voice grade loops.

**Q. ARE THERE SPECIFIC TELRIC RULES REGARDING GEOGRAPHIC DEAVERAGING?**

A. Yes. The TELRIC rules require state commissions to establish different rates for elements in at least three defined geographic cost-related zones. These geographic zones must reflect cost differences.

**Q. IN DOCKET C-2516 DID THE COMMISSION ESTABLISH TELRIC-BASED LOOP RATES DE-AVERAGED TO THREE GEOGRAPHIC ZONES?**

A. Yes. The Commission adopted TELRIC-compliant rates for voice grade loops based on the combined results of three different loop models with Commission Staff adjustments. Loop models were proposed by three different parties to the case. Additionally, the Commission adopted the zone Loop UNE costing methodology presented by the Staff as consistent with the TELRIC principles adopted by the FCC.

**Q. DO THE STAFF PROPOSALS FOR UNE LOOP DE-AVERAGING DISPLAYED IN ATTACHMENTS B AND C OF FEBRUARY 13 ORDER COMPLY WITH THE TELRIC RULES YOU DESCRIBED ABOVE?**

A. No. Staff's proposal has the fundamental problem in that it does not develop a TELRIC cost for the in-town and out-of town zones. Instead, Staff proposes a revenue allocation methodology to derive in-town and out-of-town revenue per loop that does not calculate a TELRIC-based cost for each zone.

**Q. CAN YOU PROVIDE A DETAILED DESCRIPTION OF THE STAFF METHODOLOGY?**

A. Yes. The Staff methodology is presented in Attachments B and C of the February 13, 2007 Order. I use the Staff Attachment B, broken down by steps to analyze

the calculations of zone loop cost. The Staff methodology consists of four steps. First it calculates UNE revenue for the current UNE loop zones by multiplying residential lines[2] in each zone by the current zone rate. Table 1 shows the Staff view of the zone UNE revenue prior to allocation.

**TABLE 1**

| LN | DESCRIPTION | SOURCE | ZONE 1 | ZONE 2 | ZONE 3 |
|---|---|---|---|---|---|
| 1 | Total Residential Access Lines (10/05) | NUSF Department | 128,813 | 29,206 | 27,436 |
| 2 | Current Loop Unbundled Network Element (UNE-L) Rate | C-2516 | $ 12.14 | $ 28.11 | $ 62.49 |
| 3 | Maximum UNE-L Revenue at Current Rates | Ln 1 * Ln 2 | $ 1,563,790 | $ 820,981 | $ 1,714,476 |

The second step of the Staff process creates allocation percentages for the proposed in-town and out-of-town areas in each zone. This step uses household counts (not line or loop counts) and in-town and out-of-town area costs calculated by the NUSF-50 Distribution model. These calculations are shown below in Table 2:

**TABLE 2**

| LN | DESCRIPTION | SOURCE | IT - Zone 1 | IT - Zone 2 | IT - Zone 3 | OoT - Zone 1 | OoT - Zone 2 | OoT - Zone 3 |
|---|---|---|---|---|---|---|---|---|
| 5 | Households (HH) | NUSF-50 Distribution Model | 269,104 | 26,320 | 20,413 | 13,555 | 7,706 | 9,631 |
| 6 | HH Weighted Expected Loop Cost (E(LC)) | NUSF-50 Distribution Model | $ 14.71 | $ 17.23 | $ 17.24 | $ 50.61 | $ 169.61 | $ 303.09 |
| 7 | Expected Loop Revenue (E(LR)) | Ln 5 * Ln 6 | $ 3,959,441 | $ 453,372 | $ 352,018 | $ 686,040 | $ 1,306,927 | $ 2,918,907 |
| 8 | E(LR) Distribution | Ln 7 / (Ln 7 IT + Ln 7 OoT) | 85.23% | 25.76% | 10.76% | 14.77% | 74.24% | 89.24% |

Step two multiplies the household count for each zone (line 5 in Table 2) times the NUSF-50 Distribution Model Loop Cost for the proposed zone (line 6 of

[2] The process proposed by Staff uses only ***residential*** lines times the zone rate to calculate UNE loop revenue. TELRIC methodology requires ***all*** loop demand units.

Table 2) to calculate total household revenue by proposed zone (line 7 Table 2).[3] It then calculates the percentage of the Zone revenue in in-town versus out-of-town areas (line 8 Table 2).

In the third step, zone revenue from step 1 is allocated by the in-zone and out-of-town percentages calculated in step 2. This is displayed in Table 3 below:

**TABLE 3**

| LN | DESCRIPTION | SOURCE | ZONE 1 | ZONE 2 | ZONE 3 | | | |
|---|---|---|---|---|---|---|---|---|
| 3 | Maximum UNE-L Revenue at Current Rates | Ln 1 * Ln 2 | $ 1,563,790 | $ 820,981 | $ 1,714,476 | | | |
| | | | IT - Zone | | | OoT - Zone | | |
| | | | 1 | 2 | 3 | 1 | 2 | 3 |
| 8 | E(LR) Distribution | Ln 7 / (Ln 7 IT + Ln 7 OoT) | 85.23% | 25.76% | 10.76% | 14.77% | 74.24% | 89.24% |
| 9 | UNE Loop Revenue | Ln 3 * Ln 8 | $ 1,332,851 | $ 211,447 | $ 184,513 | $ 230,939 | $ 609,534 | $ 1,529,963 |

The UNE loop revenue for residential customers is calculated by multiplying the current UNE Zone residential revenue (line 3, Table 3) times the percentage created by using NUSF-50 households and costs for the in-town zones and out-of-town zones (line 8 Table 3).

In the fourth and final step of the calculation, the Staff proposal creates a UNE loop residential revenue per residential line. This calculation is shown in Table 4:

**TABLE 4**

| LN | DESCRIPTION | SOURCE | IT - Zone 1 | IT - Zone 2 | IT - Zone 3 | OoT - Zone 1 | OoT - Zone 2 | OoT - Zone 3 |
|---|---|---|---|---|---|---|---|---|
| 9 | UNE Loop Revenue | Ln 3 * Ln 8 | $ 1,332,851 | $ 211,447 | $ 184,513 | $ 230,939 | $ 609,534 | $ 1,529,963 |
| 10 | Total Residential Access Lines (10/05) | NUSF Department / NUSF-26 Dis | 121,489 | 22,666 | 18,589 | 7,324 | 6,540 | 8,847 |
| 11 | Proposed UNE Loop Rate | Ln 9 / Ln 10 | $ 10.97 | $ 9.33 | $ 9.93 | $ 31.53 | $ 93.19 | $ 172.95 |

[3] Again, this process uses only ***household***-based revenues, as opposed to total loop demand.

The UNE residential revenue per line for in-town and out-of town zones (line 9 Table 4) is divided by the residential lines for in-town and out-of-town areas to calculate the Staff's proposed UNE loop rate displayed in line 11 of Table 4.

When the Staff proposal is broken into its component steps, it is plain to see that it doesn't involve a TELRIC calculation of cost for the six proposed zones. The NUSF-50 cost (line 6 from Staff Attachments B and C) is not used as a proposed TELRIC ***cost*** for the zones, but only as an allocator of residential UNE ***revenue***. This violates TELRIC principles, which require a minimum of three ***cost***-related zones. Therefore, the Staff proposals to disaggregate the current zones are not only misguided, but wrong, because the methodology does not produce a TELRIC compliant rate.

**Q. WHAT ADDITIONAL INCONSISTENCIES WITH TELRIC METHODOLOGY ARE CONTAINED IN THE STAFF PROPOSAL FOR DEVELOPING IN-TOWN AND OUT-OF-TOWN LOOP RATES IN EACH OF THE THREE EXISTING ZONES?**

A. The staff proposal contains additional flaws that make it inconsistent with TELRIC methodology. First, as more fully explained by Dr. Fitzsimmons, the purportedly "cost-based" allocators[4] for the in-town and out-of-town zone costs used in the staff methodology are based on flawed regression algorithms. These

[4] These are the costs described as HH Weighted Expected Loop Costs(E(LC)) in Attachments B and C line 6 that originate in the NUSF-50 Distribution Model.

regression algorithms produce cost results that substantially deviate from the BCPM-developed costs . The NUSF-50 cost allocators are displayed in Table 5 below:

**TABLE 5**

| LN | DESCRIPTION | SOURCE | IT - Zone 1 | IT - Zone 2 | IT - Zone 3 | OoT - Zone 1 | OoT - Zone 2 | OoT - Zone 3 |
|---|---|---|---|---|---|---|---|---|
| 6 | HH Weighted Expected Loop Cost (E(LC)) | NUSF-50 Distribution Model | $ 14.71 | $ 17.23 | $ 17.24 | $ 50.61 | $ 169.61 | $ 303.09 |

The Staff regression model was designed to consistently replicate the BCPM cost results, however they do not (as discussed by Dr. Fitzsimmons). Therefore, the cost results of the regression model should not be utilized since they are no more than arbitrary allocators. Additionally, the regression model results deviate from the Commission-approved UNE loop methodology. If the regression method were reliable, we could expect that the weighted average UNE loop cost of the allocators for the existing three zones would yield similar results to the ordered TELRIC rates in Docket C-2516. The weighted costs of the allocators for the three zones are calculated in Table 6 below:

**TABLE 6**

| LN | DESCRIPTION | SOURCE | IT - Zone 1 | IT - Zone 2 | IT - Zone 3 | OoT - Zone 1 | OoT - Zone 2 | OoT - Zone 3 |
|---|---|---|---|---|---|---|---|---|
| 6 | HH Weighted Expected Loop Cost (E(LC)) | NUSF-50 Distribution Model | $ 14.71 | $ 17.23 | $ 17.24 | $ 50.61 | $ 169.61 | $ 303.09 |
| 8 | E(LR) Distribution | Ln 7 / (Ln 7 IT + Ln 7 OoT) | 85.23% | 25.76% | 10.76% | 14.77% | 74.24% | 89.24% |
| | | | **ZONE 1** | **ZONE 2** | **ZONE 3** | | | |
| | Calculated Weighted Zone Rate | Ln 6 IT * Ln 8 IT + Ln6 OoT * Ln 8 OoT | $ 20.01 | $ 130.36 | $ 272.32 | | | |
| 2 | Current Loop Unbundled Network Element (UN | C-2516 | $ 12.14 | $ 28.11 | $ 62.49 | | | |

By way of comparison, the UNE loop zone rates approved in C-2516/PI-49 are $15.14, $35.05, and $77.92[5] respectively. These approved rates differ significantly from the weighted costs developed in the Staff proposal in this docket: $20.01, $130.36, and $272.32. Staff's weighted costs by zone also differ significantly even from the current rates resulting from Qwest's voluntary rate reductions: $12.14, $28.11, and $62.49. Clearly, the weighted allocator costs shown in Table 6 are inconsistent with the Commission's TELRIC findings from 2002.

**Q. ARE THERE OTHER FLAWS WITH THE METHODOLOGY IN THE STAFF PROPOSALS?**

A. Yes. As I noted above in my testimony, the whole concept of using a revenue allocation process to set UNE rates is not TELRIC compliant. Ignoring this basic incorrect premise of the Staff process,, the methodology for calculating the costs for the in-town and out-of-town UNE rates reflected in Attachment B and C to the February 13 Order uses demand counts that are inconsistent with the demand counts used to calculate TELRIC results. TELRIC rules[6] require that the demand be "a reasonable projection of the sum of the total number of units of the element that the incumbent LEC is likely to provide to requesting telecommunications

[5] Line 2 of Staff Attachments B and C are the current UNE loop Zone rates. These rates were voluntarily reduced by Qwest from the approved Docket C-2516 in an Order from the Nebraska Commission dated June 5, 2002. The voluntary rate reductions were not computed with reference to the C-2516 cost models.
[6] 47 CFR §51.511

carriers and the total number of units that the incumbent LEC likely to use in offering its own services, during a reasonable measuring period."

**Q. HOW DO THE COUNTS OF RESIDENTIAL LINES AND HOUSEHOLDS USED IN ATTACHMENTS B AND C DIFFER FROM DEMAND COUNTS UTILIZED IN A TELRIC STUDY?**

A. Line counts used in a TELRIC unit cost study represent total service demand, which includes all units of demand, both retail and wholesale, for a particular network element. The demand for the network element of unbundled loops ("UNE loops") is comprised of the total of (i) residential loops sold to retail customers, (ii) business loops sold to retail customers, (iii) loops sold to wholesale customers as UNEs, and (iv) loops sold to wholesale customers through commercial agreements. Setting aside the fundamental problem that the purpose of line 1 is to reallocate revenue and not determine loop costs, Line 1 of Staff Attachments B and C represents only *one* of these four categories: residential loops.

**Q. DO THE RESIDENTIAL LINE COUNTS AFFECT THE STAFF CALCULATION OF UNE REVENUES?**

A. Staff only used residential line counts, which are significantly less than the counts of residential, business, UNE, and wholesale commercial agreement lines. This leads to an underestimation of the "Maximum UNE-L Revenue at Current Rates"

in line 3 of Staff Attachments B and C. This, in turn, improperly lowers the calculated UNE rate.

**Q. WHAT INTERNAL INCONSISTENCIES EXIST IN THE DEMAND COUNTS USED IN STAFF'S ATTACHMENT B AND C?**

A. Staff's Attachments B and C use total residential lines from the NUSF Department in the calculation of "Maximum UNE-L Revenue" (line 3), but use households from the NUSF-50 Distribution Model when calculating the "Expected Loop Revenue" (line 7).

**TABLE 7**

| | | | ZONE | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| LN | DESCRIPTION | SOURCE | 1 | 2 | 3 | Total | | | |
| 1 | Total Residential Access Lines (10/05) | NUSF Department | 128,813 | 29,206 | 27,436 | 185,455 | | | |
| | | | IT - Zone | | | OoT - Zone | | | |
| | | | 1 | 2 | 3 | 1 | 2 | 3 | Total |
| 5 | Households (HH) | NUSF-50 Distribution Model | 269,104 | 26,320 | 20,413 | 13,555 | 7,706 | 9,631 | 346,728 |
| | Households (HH) Exceed Res Lines | Ln 5 Total - Ln 1 Total | | | | | | | 161,273 |

This apples and oranges approach of using inconsistent demand counts in the allocation process compounds the problems caused by using arbitrary cost to allocate zone rates and leads to nonsensical zone cost results where Staff Attachment B's "Proposed UNE Loop Rate" for zones 2 and 3 are lower than the "Proposed UNE Loop Rate" for zone 1.

**Q. WHY DO YOU SAY THAT STAFF IS USING AN APPLES AND ORANGES APPROACH TO UNITS OF DEMAND?**

A. The Staff uses "household" counts on line 5 of Staff Attachments B and C, while using "Total Residential Lines" in lines 1 and 10. First, setting aside the fact that "households" has no relevance to any proper TELRIC determination, "households" is a different measure than "residential access lines," and there is no analytical or logical reason for using different measures even within the Proposal's logic. These "household" counts include households that are not current Qwest customers and therefore should not be included in the demand utilized to calculate TELRIC cost. This fact can readily be observed in Table 7 by comparing the line 1 residential line counts with the household counts on line 5. For example, the total households exceed the total residential lines by 161,273. Again, these flaws cause the Staff-proposed methods to calculate results that do not make logical sense for a unit cost in general, or create a properly constructed TELRIC result.

**Q. DOES THE DIFFERENTIAL BETWEEN HOUSEHOLD COUNTS AND RESIDENTIAL LINE COUNTS POINT TO ANY OTHER TELRIC PROBLEMS?**

A. Yes. The Nebraska telecommunications marketplace has substantially changed since the 2002 TELRIC docket was conducted. Qwest has experienced substantial competitive loss that can be seen by the number of households

currently in excess of the residential lines that the NUSF Department tracks for Qwest[7]. In fact, based on the line counts utilized in the approved UNE loop cost models, the number of lines served by Qwest has dropped from 563,286 to 322,594 for the equivalent lines today. The effect of the loss of lines significantly impacts the calculation of a TELRIC UNE loop rate. It makes sense to recalculate the TELRIC UNE loop rate given the change in market conditions and the reduced demand Qwest currently experiences for loop-based services.

**Q. HOW DO YOU PROPOSE TO RECALCULATE THE TELRIC LOOP RATE?**

A. My proposal is to update the Commission-approved UNE loop models and methodology with current loop count data and expense data[8],then recalculate the cost following the Commission's approved methodology.. In its Findings and Conclusions in Docket No. C-2516, the Commission stated at paragraph 73:

> The Commission believes any possible bias contained in each model and its associated inputs, will be minimized by utilizing the HAI, HCPM, and BCPM, each model's respective default inputs for cable placement, cost sharing, plant mix, and fill factors, Staff's adjustments to cost of capital and depreciation, where appropriate, and the averaging methodology presented by Staff. Further, the Commission agrees with Dr. Rosenbaum that the Staff's methodology develops cost–based Loop UNE rates that are nondiscriminatory, TELRIC-based, and reflect forward-looking, efficient technologies.

[7] The NUSF residential line data is described as of October, 2005.
[8] Of the three models used in the Commission-approved methodology, only the HAI utilizes embedded investment and expense data from ARMIS that requires updating.

Using the latest end of year line counts available, December 2006 lines and the latest available ARMIS data for year 2005, I have rerun the three models as specified in the Commission's Order from Application C-2516/PI-49.

**Q. WHAT ARE THE UPDATED UNE LOOP COST STUDY RESULTS FOR THE CURRENT THREE ZONE STRUCTURE?**

A. Based on the existing wire center zones, updated line counts, and updated ARMIS data, the UNE loop costs are $28.16 for zone 1, $46.19 for zone 2, and $93.97 for zone 3. A summary of the updated studies is attached as Exhibit PBC-1 (Updated results for BCPM, HAI, and HCPM), Exhibit PBC-2 (Updated HAI run), Exhibit PBC-3 (Updated SM run) and Exhibit PBC-4 (Updated BCPM output).

**Q. ARE THERE ANY OTHER ENVIRONMENTAL CHANGES THAT AFFECT THE TELRIC UNE LOOP RATES?**

A. Yes. On September 16, 2005 the FCC granted Qwest relief from the obligation to provide UNEs[9], including voice grade loops, to competitors in nine of Qwest's 24 wire centers in the Omaha MSA[10]. The FCC's News Release dated September 16, 2005, "FCC GRANTS QWEST FORBEARANCE RELIEF IN OMAHA MSA" stated:

> With regard to section 251(c)(3) unbundling obligations for transmission facilities, the Commission grants Qwest relief in targeted areas where intermodal deployment is extensive. Specifically, the Commission relieves Qwest of the

[9] Under Sections 252 and 252 of the 1996 Telecommunications Act.
[10] U.S. Census Bureau Metropolitan Statistical Area.

obligation to provide unbundled network elements (UNEs) to competitors in 9 of Qwest's 24 wire center service areas in the Omaha MSA

Since Qwest no longer has the obligation to provide UNE loops in those nine forbearance wire centers, it is appropriate to remove the UNE loop costs for those nine wire centers from the calculation of the zone-specific UNE cost, because Qwest will not provide UNE loops in the forbearance wire centers to requesting telecommunications carriers. In Docket No. C-2516, all nine wire centers were designated as part of zone 1. Therefore, the nine Omaha wire centers that no longer have unbundling obligations should be removed from the calculations of a zone 1 UNE loop rate.

**Q. WHAT EFFECT DOES THE REMOVAL OF THE NINE WIRE CENTERS HAVE ON THE ZONE 1 RATE?**

A. When the nine wire centers are removed from the zone calculation, zone 1 UNE loop cost changes from $28.16 to $29.49. Neither zone 2 nor zone 3 UNE loop costs are impacted.

**Q. WHY IS IT APPROPRIATE TO INCLUDE WHOLESALE LOOPS SOLD UNDER COMMERCIAL AGREEMENT IN THE BASIC UNE LOOP COST CALCULATION AT THE WIRE CENTER, BUT TO REMOVE THE FORBEARANCE WIRE CENTERS FROM THE ZONE CALCULATION?**

A. As I stated earlier in my testimony, UNE costs must reflect the total service cost of the element. Therefore, it is appropriate to include loops sold under commercial agreements as well as retail loops, in addition to loops sold as UNEs in order to spread common costs equally across all loops. For each of the three Commission-approved UNE loop cost models, a UNE loop cost was developed for each wire center using total loop demand. This insures that economies of scale are realized and that common costs are spread equally over all loops, whether they are sold as retail, commercial, or UNE services. However, since Qwest has no obligation to sell UNE loops in the nine Forbearance wire centers, it is no longer appropriate to include those wire centers in developing the UNE loop zone cost. The cost for UNE loops in zone 1 should reflect the costs of the zone 1 wire centers where UNE loops are sold. For example, the current zone 1 UNE loop rate is comprised of the weighted average cost of 18 wire centers and includes the nine wire centers where the FCC granted UNE loop forbearance. In order to reflect the grant of Forbearance in UNE loop zone 1, the weighted average loop cost should be calculated using the nine zone 1 wire centers where

the FCC continues to require Qwest to provide UNE loops. The calculation of a zone 1 rate should not include wire centers loop costs where loops are sold under commercial agreements at prices that are market-based, because Qwest is now expected to recover its costs for loops in those wire centers through commercial sales or retail customers, rather than from UNE competitors. Since no UNE loops are sold in the nine Omaha wire centers named in the Forbearance Order, it is improper to include them in the zone average cost.

**Q. THE THREE COMMISSION-APPROVED LOOP MODELS DEVELOP UNE LOOP COSTS AT THE WIRE CENTER LEVEL. IS IT POSSIBLE TO DEVELOP IN-TOWN AND OUT-OF-TOWN COSTS FROM THE COMMISSION-APPROVED UNE LOOP MODELS?**

A. No. The models were developed to calculate costs at the wire center level.. It would be nearly impossible to modify the three models to develop costs for in-town and out-of-town areas for consistent geographic areas, since each model clusters its geographic inputs through totally different processes. Additionally, each model uses different customer location data, which also creates inconsistency when trying to compare results for geographic areas below the wire center level. The smallest common geographic level available in the models is the wire center.

**Q. BASED ON THE ABOVE FACTS, IS IT POSSIBLE TO DEVELOP TELRIC COSTS FOR IN-TOWN AND OUT-OF-TOWN ZONES IN NEBRASKA?**

A. No. A TELRIC compliant UNE loop cost cannot be calculated for in-town and out-of-town zones with the currently available models, including the NUSF-26 Distribution Model. In order to develop TELRIC costs on this basis, some new model is necessary. The development time and cost for such a model would be very high given the complexity of the task and the geographic coverage required.

**Q. HAS QWEST DISCUSSED THE LEVEL OF DE-AVERAGING OF UNE LOOPS WITH CLECS IN OTHER STATES?**

A. The question of the number of zones has been discussed in other states, such as Colorado. The most recent discussion occurred in the fall of 2005, where Eschelon expressed a preference for maintaining the existing three UNE loop zones, rather than further de-averaging the UNE loop. Increasing the number of zones creates additional administrative and back-office systems costs for both CLECs and Qwest. For example, provisioning, inventory, and billing systems would require changes to handle two zones per wire center and all loop inventory systems would need to identify which loops are in-town and which loops are out-of-town.

## IV PORTING

**Q. DO STATE AND FEDERAL HIGH COST UNIVERSAL SERVICE FUNDS TARGET SUPPORT TO GEOGRAPHIC AREAS CONSISTENT WITH UNE ZONES?**

A. Most federal and state high cost universal service funds in Qwest territory utilize geographic targeting at the wire center level. Examples of this are the Federal Non-rural High Cost Model fund, the Colorado High Cost Support Mechanism, and the Oregon Universal Service Fund. In the case of each of the funds, UNE loop based ETCs are eligible for funding. Both Oregon and Colorado have UNE loop zones that are based on groupings of wire centers, where the UNE costs are averaged across a number of wire centers. If an UNE-based ETC serves a high cost wire center, it receives the Federal, Colorado, or Oregon USF as the lesser of the unbundled network element price for the loop or the incumbent LEC's per line payment from the high cost support funds. In wire centers where no support is targeted, CETCs, like the incumbent LEC receive no support. Additionally, there are wire centers in the highest cost UNE zones where neither the incumbent, nor the UNE-based CETC receive support and the cost of that particular wire center is below the zone average UNE rate.

**Q. IS IT POSSIBLE FOR THE NEBRASKA COMMISSION TO ADOPT THEIR OWN VERSION OF THE FEDERAL APPROACH, WHICH**

**CONTINUES TO TARGET SUPPORT TO RESIDENTIAL LINES IN OUT-OF-TOWN AREAS OF THE WIRE CENTERS AND NOT SUPPORT ANY CUSTOMERS IN-TOWN?**

A. I don't see any reason why it would not work. In fact, Attachment B is easily modified to display this approach. The loop revenue benchmark concept also fits in well with this concept. In Exhibit PBC-5, I have modified the staff Attachment B to reflect how such an approach could be implemented.

**Q. HOW SHOULD THE UPDATED UNE LOOP COSTS BE UTILIZED IN THIS MODIFIED APPROACH?**

A. The updated UNE loop costs should be utilized in line 2, in place of the "Current Loop Unbundled Network Element (UNE-L) Rate. The updated UNE loop costs should also replace line 6, the "HH Weighted Expected Loop Cost (E(LC)) and line 11, the "Proposed UNE Loop Rate".

**Q. ARE THERE OTHER ADJUSTMENTS THAT NEED TO BE INCLUDED IN YOUR PROPOSED METHODS IN EXHIBIT PBC-5?**

A. Yes. I have other corrections and adjustments. As I discussed above in the TELRIC cost section of my testimony, total access lines should be used in the porting calculations consistent with the development of the UNE cost. In modifying the Attachment B, I replaced line 1, Total Residential Access Lines with Qwest's "Total Access Lines" for December 2006. Further, I used these

lines, split between in-town and out-of town[11] to replace line 5, "Households". All other formulae were left in place.

**Q. IS IT NECESSARY TO MODIFY LINE 10, TOTAL RESIDENTIAL LINES" FROM THE ORIGINAL ATTACHMENT B?**

A. No. It is correct for line 10 to represent only the lines that receive support in the targeted area, regardless of ETC. The line 10 data should be of a consistent time frame with the modified data in line 1 "Total Access Lines". However, Qwest does not have a count of residential lines other than its own. It would be consistent for the NUSF Department to include all CETC residential lines and Qwest's residential lines in the data on line 10.

**Q. BASED ON YOUR EXHBIT PBC-5, WHICH INCLUDES UPDATED TELRIC COST, WHAT LEVEL OF SUPPORT IS PORTED TO CETCS?**

A. CETCs serving residential customers in out-of-town areas would receive $5.35 in monthly per line NUSF support in Zone 1 out-of-town areas, $22.05 in monthly per line NUSF support in Zone 2 out-of-town areas, and $69.83 in monthly per line NUSF support in Zone 3 out-of-town areas. This level of support is contingent on UNE loop rates of $29.49 in zone 1, $46.19 in zone 2, and $93.97 in zone 3. Again, there would be no support for in-town customers of any ETC.

[11] While Qwest has no identification of loops by the Commission's "in-town" and "out-of-town" designation, it has retail billing codes that designate whether a line is in the base rate area or in a zone outside the base rate area. However, Qwest wholesale lines do not have similar billing codes. It was

**Q IS IT POSSIBLE TO CALCULATE THE EFFECT OF THE SAME TARGETING AND PORTING APPROACH USING THE EXISTING UNE RATES?**

A. Yes. In Exhibit PBC-6, I have provided the same calculations, but I have used the existing zone UNE loop rates. CETCs serving residential customers in out-of-town areas would receive $0.00 in monthly per line NUSF support in Zone 1 out-of-town areas, $3.97 in monthly per line NUSF support in Zone 2 out-of-town areas, and $38.35 in monthly per line NUSF support in Zone 3 out-of-town areas. This level of support is contingent on UNE loop rates of $12.14 in zone 1, $28.11 in zone 2, and $62.49 in zone 3. Again, there would be no support for in-town customers of any ETC.

**Q. DOES YOUR PROPOSAL REQUIRE ANY ADDITIONAL ADMINISTRATIVE WORK ABOVE THE COMMISSION'S CURRENT ADMINISTRATIVE PRACTICES?**

A. It may. This approach requires that the NUSF Department verify that the CETC residential customers are located in out-of-town areas in order to receive support. However, the additional administrative cost of such an approach should be justified given the policy direction the Commission is taking.

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assumed that the in-town/out-of-town distribution for wholesale lines was the same as for Qwest's retail lines.

## V. ADDITIONAL CONCERNS

**Q. IF THE COMMISSION ADOPTS ONE OF THE STAFF PROPOSED METHODS FOR DE-AVERAGING AND PORTING, ARE THERE ANY ADJUSTMENTS THAT SHOULD BE MADE TO THE METHODOLOGY?**

A. If the Commission adopts either of the Staff proposals, the resulting zone rates will not be TELRIC compliant. However, there are a number of changes that are necessary in order to make the proposed calculations logically consistent. For example, the weighted average state-wide loop rate is lowered by the Staff calculations because these calculations use incorrect and inconsistent demand data. Necessary changes include using current total access lines to replace lines 1 and 5 and using updated TELRIC rates for the existing three zones in line 2 of the calculations. These changes are necessary in order to use consistent demand counts that create in-town and out-of-town revenues that balance to the total zone revenues.

**Q. IN THE ABOVE SCENARIO, DOES QWEST HAVE A PREFERENCE FOR THE METHODS IN ATTACHMENT B OR ATTACHMENT C?**

A. If the Commission adopts one of the proposed revenue reallocation models proposed by Staff, Qwest prefers the use of Staff's Attachment C, modified as set forth below, because the in-town zone calculations in Attachment B create anomalous results. In the Attachment B calculations, in-town zone 1 rates are

higher than in-town zone 2 or zone 3 rates. This result makes no logical sense and is another point of reference for finding the whole approach flawed. While Attachment C includes this flaw, the averaging of the in-town costs for the three zones masks the problem.

**Q. HAVE YOU DEVELOPED A MODIFIED ATTACHMENT C THAT CORRECTS THE DEFICIENCIES YOU DISCUSSED ABOVE?**

A. Yes. Exhibit PBC-7 includes the changes I discuss above. The corrections to Attachment C ensure the weighted average UNE loop zone potential Revenue remains the same with the in-town and out-of-town zones as with the original three zones created in Docket No. C-2516.

**Q. WHAT ARE THE RESULTING ZONE RATES BASED ON THE CALCULATIONS IN EXHIBIT PBC-7?**

A. The in-town rate for all three zones becomes $24.23. The out-of-town zone rates are: zone 1 = $89.97; zone 2 = $156.62; and zone 3 = $317.14. The ported NUSF support for the out-of-town zones are: zone 1 = $32.95; zone 2 = $119.48; and zone 3 = $218.55. There is no porting for in-town zones.

## VI. CONCLUSION

**Q. WHAT PROCESS DOES QWEST RECOMMEND THAT THE COMMISSION ADOPT FOR UNE LOOP DE-AVERAGING AND THE PORTING OF NUSF SUPPORT?**

A. Qwest recommends that the Commission adopt the process described in Exhibit PBC-6. This process is the least disruptive to Qwest's customers and the NUSF, since it involves no changes in the existing UNE rates and creates a porting method that is widely used across the country. If the Commission insists on moving to an in-town and out-of-town zone structure, Qwest strongly proposes that the Commission reset the TELRIC UNE loop rate using the Commission-approved UNE loop models and current line count and expense data, as displayed in Exhibit PBC-1.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

A. Yes.